

Characterization of the oestrous cycle of the nine-banded armadillo (*Dasypus novemcinctus*)

Objectives

- ➔ Obtain knowledge of the anatomical and physiological reproductive behaviour of females of nine-banded armadillo (*Dasypus novemcinctus*).
- ➔ Characterize their reproduction cycle. It is done by observing histological sections of the reproductive organs.

Results and discussion

➔ Ovaries

- The antral follicles were located in the cortical region of the ovary, as de case of the other domestic mammals. In all the females were observed atretic, preantral and antral follicles. \Rightarrow Follicular waves.
- The females in the follicular phase presented an average of 7,6 follicles (with a range of 5 to 10 follicles) \Rightarrow Apparently the females of the study are not in the advanced stage of follicular selection.
- The largest antral follicle observed in all females had a diameter of 2,7 mm \Rightarrow The preovulatory follicle should have at least this size, but with the full analysis, we see that it must still be developed to be a preovulatory follicle.
- The diameter of CL: 5mm \pm 2,1 (luteal female) and 5,6mm (pregnant female). They had only one CL and three fetuses \Rightarrow Polyembryony.

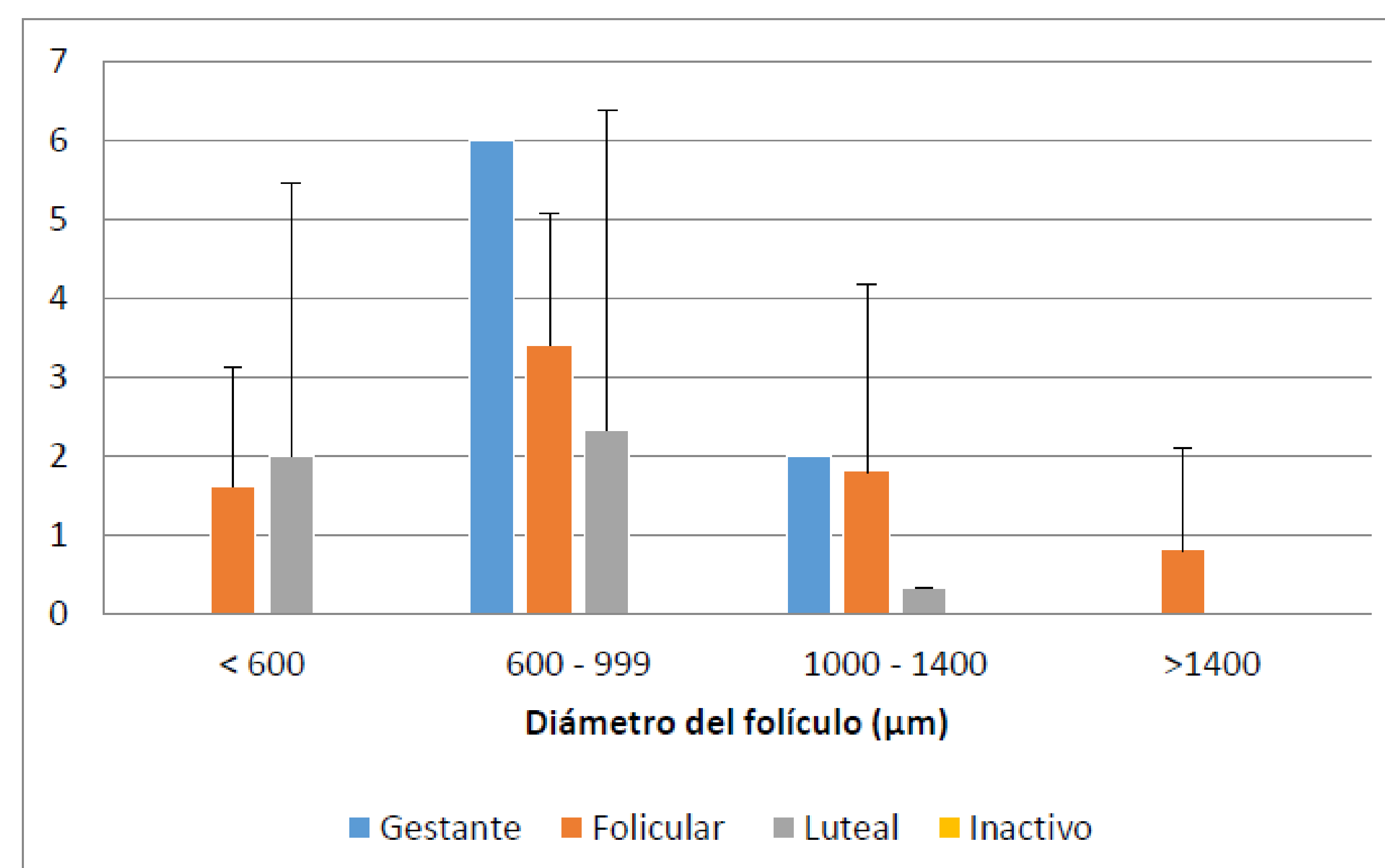


Fig. 1. Average distribution of the antral follicles according to the diameter of the follicle and the reproductive phase.

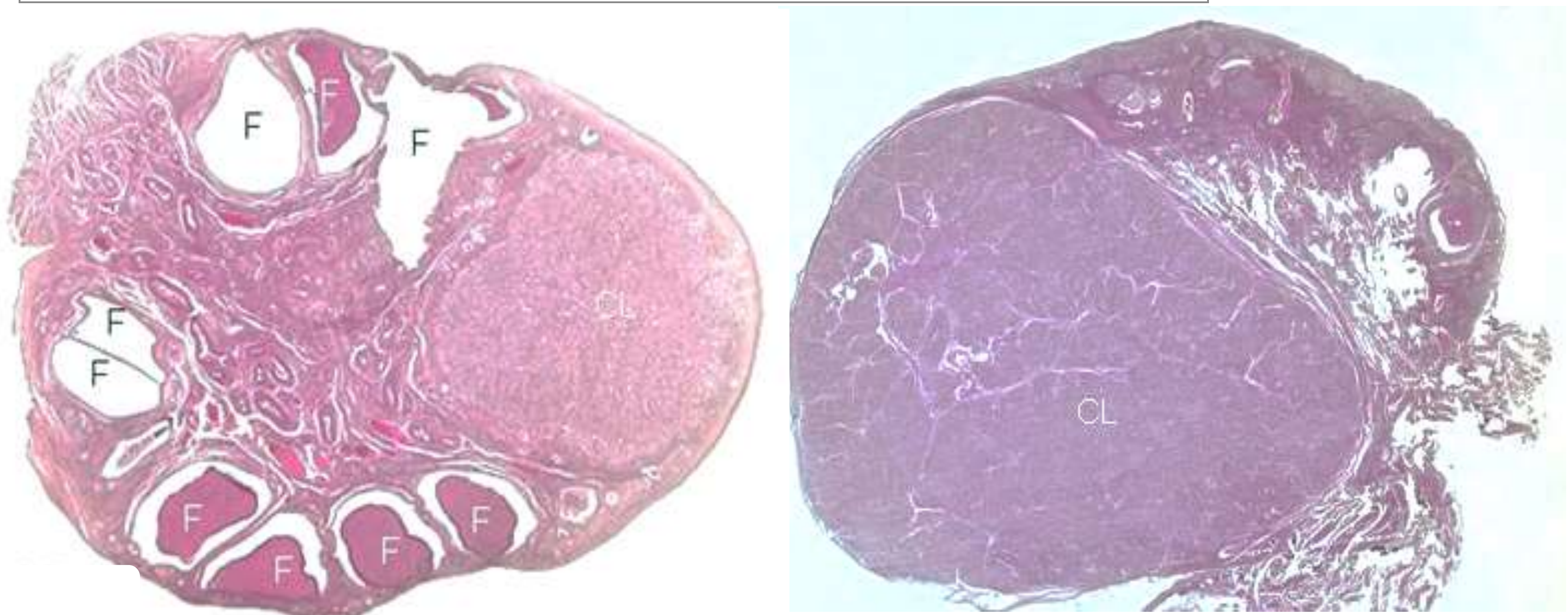


Fig. 2. Histological section of the ovary of a female in luteal phase and of the pregnant female. H&E.



Fig. 3. Histological section of the endometrial glands, H&E. Uterus, cervix and vagina of non-pregnant and pregnant female, respectively.

➔ Uterus

- They presented simple uterus, which consists of the cervix and uterine body. The endometrium presented a simple cylindrical epithelium. The glands had columnar epithelium cells.
- The luteal females presented more thickness of the endometrium, glandular density and secretion than the follicular females. \Rightarrow Progesterone secretion.
- The epithelium of the cervix is flat stratified.

➔ Vagina

- When the diameter of the antral follicle increases, the thickness of the vaginal epithelium decreases. The females didn't show an increase in the thickness of the epithelium according to the reproductive phase.

Conclusions

- There are follicular waves in oestrus cycle of *Dasypus novemcinctus*. The follicle preovulatory has to be measured, at least 2,7 mm.
- The females don't have relation between the diameter of the major follicle and the thickness of the vaginal epithelium. The reproductive phase can't be diagnosed through a colpocytology.
- The pregnant female has a CL and three fetuses because it is polyembryonic.
- The armadillos has a simple uterus, similar to that of primates.
- The females in the luteal phase have an endometrial thickness, density and secretion glandular more large than the other females.